



INFORMATION DISCLOSURE STATEMENT	Case Name: E.D. Isaacs 3-6 Serial No. 10/797399 Applicant: E.D. Isaacs, et al. Filing Date: March 10, 2004 Group: 2881 2821
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U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

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		Document Number	Date	Country	Class	Subclass	Translation
<i>ca</i>	AB	DE 4119518	1/8/1998	Germany	H01Q	15/04	No
<i>ca</i>	AC	FR 2747842	6/15/1990	France	H01Q	3/46	No

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<u>cc</u>	AD	R. A. Shelby, et al, "Experimental Verification of a Negative Index of Refraction", <i>Science</i> , vol. 292, (4/6/01), pp. 77-79.
<u>cc</u>	AE	R. A. Shelby, et al, "Microwave Transmission Through a Two-Dimensional, Isotropic, Left-Handed Metamaterial", <i>Applied Physics Letters, American Institute of Physics, New York</i> , vol. 78, no. 4, (1/22/01), pp. 489-491.
<u>cc</u>	AF	Lixin Ran, et al, "Beam Shifting Experiment for the Characterization of Left-Handed Properties", <i>Journal of Applied Physics</i> , vol. 95, no. 5, (3/1/04), pp. 2238-2241.
<u>cc</u>	AG	Chekroun Claude, "Microwave Lens With Panel of Stacked Phase Shifting Channels," <i>Abstract of French Patent FR 2747842</i> , (10/24/1997), published at esp@cenet online database, 1 page.
<u>cc</u>	AH	European Search Report for Appl. No. 05251005.4-1248-, (5/30/05).

***References listed beyond AZ would list as AA-1, AB-2, AC-3 thru AZ-26.

***Note First Page ONLY Header/Footer. Subsequent pages must ONLY have page # layout as header

EXAMINER	DATE CONSIDERED
<i>Shi-kao Chan</i>	<i>8/23/05</i>

***Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

3/10/04

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*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
ce	AA	6,597,318	7/22/2003	Parsche et al.	343	700	6/27/2002
ce	AB	6,621,448	9/16/2003	Lasky et al.	342	22	4/5/2002
ce	AC	6,661,392	12/9/2003	Isaacs et al.	343	911	3/4/2002
ce	AD	2002/0175693	11/28/2002	Starr et al.	324	702	5/23/2002
ce	AE	6,002,368	12/14/1999	Faraone et al.	343	700	6/24/1997
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ce	AL	WO 03/044897	5/30/2003	PCT	H01Q	15/10	—
ce	AM	WO 03/054592	7/3/2003	PCT	G02B	5/30	—
ce	AN	WO 03/087904	10/23/2003	PCT	G02B	6/12	—
ce	AO	GB 2 387 031	10/1/2003	Great Britain	H01Q	1/36	—

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ce	AP	Pendry, J.B. et al., "Extremely Low Frequency Plasmons in Metallic Mesostructures," Physical Review Letters, Vol. 76, No. 25, pp. 4773-4776, June 17, 1996.
ce	AQ	Shelby, R.A. et al., "Experimental Verification of a Negative Index of Refraction," Science, Vol. 292, pp. 77-79, April 6, 2001.
ce	AR	Kolinko, P. et al., "Numerical study of electromagnetic waves interacting with negative index materials," Optics Express, Vol. 11, No. 7, pp. 640-648, April 7, 2003.
ce	AS	Shelby, R.A. et al., "Microwave transmission through a two-dimensional, isotropic, left-handed metamaterial," Applied Physics Letters, Vol. 78, No. 4, pp. 489-491, January 22, 2001.
ce	AT	Grbic, A. et al., "Experimental verification of backward-wave radiation from a negative refractive index metamaterial," Journal of Applied Physics, Vol. 92, No. 10, pp. 5930-5935, November 15, 2002.
ce	AU	Eleftheriades, G.V. et al., "Planar Negative Refractive Index Media Using Periodically L-C Loaded Transmission Lines," IEEE Transactions on Microwave Theory and Techniques, Vol. 50, No. 12, pp. 2702-2712, December 2002.

EXAMINER	DATE CONSIDERED
shih-chao chen	8/23/05

*Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

<i>ce</i>	AV	Eleftheriades, G.V., et al., "Transmission Line Models for Negative Refractive Index Media and Associated Implementations Without Excess Resonators," IEEE Microwave and Wireless Components Letters, Vol. 13, No. 2, pp. 51-53, February 2003.
<i>ce</i>	AW	Pendry, J.B., "Negative Refraction Makes a Perfect Lens," Physical Review Letters, Vol. 85, No. 18, pp. 3966-3969, October 30, 2000.
<i>ce</i>	AX	Markos, P. et al., pre-print for: "Structures with negative index of refraction," Physica Status Solidi A-Applied Research, Vol. 197, No. 3, pp. 595-604, Wiley, Weinheim, Germany, June 2003.
<i>ce</i>	AY	Smith, D.R. et al., "Negative Refractive Index in Left-Handed Materials," Physical Review Letters, Vol. 85, No. 14, pp. 2933-2936, October 2, 2000.
<i>ce</i>	AZ	Pendry, J.B., "Magnetism from Conductors and Enhanced Nonlinear Phenomena," IEEE Transactions on Microwave Theory and Techniques, Vol. 47, No. 11, pp. 2075-2084, November, 1999.
<i>ce</i>	AA-1	Sievenpiper, D.F. et al., "3D Metallo-Dielectric Photonic Crystals with Strong Capacitive Coupling between Metallic Islands," Physical Review Letters, Vol. 80, No. 13, pp. 2829-2832, March 30, 1998.
<i>ce</i>	AA-2	Wiltshire, M.C.K., "Bending Light the Wrong Way," Science, Vol. 292, No. 5514, pp. 60-61, April 6, 2001.
<i>ce</i>	AA-3	Smith, D.R. et al., "Composite Medium with Simultaneously Negative Permeability and Permittivity," Physical Review Letters, Vol. 84, No. 18, pp. 4184-4187, May 1, 2000.
<i>ce</i>	AA-4	Johnson, R.C., "Metamaterial' holds promise for antennas," optics, http://www.eetimes.com/storyOEG20010430S0110 , EE Times, May 11, 2001, pp. 1-3.
<i>ce</i>	AA-5	Smith, D.R. et al., "Loop-wire Medium for Investigating Plasmons at Microwave Frequencies," Applied Physics Letters, Vol. 75, No. 10, September, 1999, pp. 1425-1427.
<i>ce</i>	AA-6	Smith, D.R., et al., "Direct Calculation of Permeability and Permittivity for a Left-handed Metamaterial," Applied Physics Letters, Vol. 77, No. 14, October 2000, pp. 2246-2248.
<i>ce</i>	AA-7	Meeting Invitation for "Darpa Meta-Materials Workshop, September 29, 2000," published online at : http://sainc.com/conference/view/Invitation.asp , Greenbelt, MD, 2 pages.
<i>ce</i>	AA-8	UCSD Press Release, "UCSD, Physicists Develop New Class of Composite Materials with 'Reversed' Physical Properties Never Before Seen," Press Conference, Minneapolis, MN, March, 2001, 3 pages.
<i>ce</i>	AA-9	Left Handed Materials, published online by USD at: http://physics.ucsd.edu/~rshelby/hmedia/intro.html , March, 2000, 3 pages.

***References listed beyond AZ would list as AA-1, AB-2, AC-3 thru AZ-26.

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